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(54) METHOD FOR IMMOBILIZING DNA FRAGMENT TO SURFACE OF SOLID- PHASE CARRIER AND DNA CHIP

(57)Abstract:

PROBLEM TO BE SOLVED: To develop an immobilization method capable of bonding a DNA fragment separately prepared beforehand to the surface of a solid-phase carrier by a rapid reaction and making the reaction product stably maintain the bond and to obtain a DNA chip not especially requiring a blocking process.

SOLUTION: This method for immobilizing the DNA fragment to the surface of solid-phase carrier is characterized in that an aqueous liquid containing a DNA fragment containing an amino group at a terminal end is dotted and adhered to a solid-phase carrier supporting a polymer having a cyclic acid anhydride structure on the surface or a solid-phase carrier supporting a polymer comprising a carboxyl group-containing monomer as a constituent component on the surface is made into a cyclic acid anhydride by a dehydrating agent and the aqueous liquid containing the DNA fragment containing the amino group at the terminal end is dotted and adhered to the solid-phase carrier. This DNA fragment is obtained by the method. This method for detecting a nucleic acid fragment having complementarity to the DNA fragment on the DNA chip uses the DNA chip.

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